

Cypress Minnow

Hybognathus hayi

Guidelines for Landowners Using Conservation Practices

Missouri Department of
Conservation

Common name ▪ Cypress Minnow
Scientific name ▪ *Hybognathus hayi*
State status ▪ Endangered
Federal status ▪ None

Ecology

Cypress minnows were historically located throughout much of the Ohio River drainage and the Mississippi River basin from the Illinois-Missouri border south to the Gulf of Mexico. In Missouri, they are limited to locations in the southeastern corner of the state. Cypress minnows occur in backwaters of large, sluggish rivers, and their associated oxbow lakes. They are found in still waters over substrates of sand, silt, and organic debris. Their diet consists of detritus, algae, and other aquatic plants. Spawning likely occurs in the spring and eggs are spread over mud. Adult cypress minnows reach a length of 2.2 to 3.0 inches.

Reasons for Decline

The cypress minnow is rare or has drastically declined in abundance throughout most of its northern range. Cypress minnows probably never were common or widespread in Missouri. However, conversion of wetlands to agricultural fields and urban areas in its current range has decreased the habitat of this fish.

Recommendations

Cypress minnows are very specific in their habitat requirements, which explain their limited range in Missouri. Because of this, alterations to existing habitat could eliminate this species from part of its natural, historical range. Protection and restoration of wetlands is an essential goal, not only for species like the cypress minnow, but because wetlands provide important environmental services.

Efforts should be made to ensure our waterways are healthy through protection and/or restoration of habitat for this and other aquatic species.



Photo Credit: <http://gwsphotos.com/images/1193.jpg>

Avoid constructing stream crossings. If unavoidable, culverts and stream crossings should be constructed with the same bottom elevation as the existing streambed to avoid restricting stream flow and obstructing fish passage.

Bank stabilization materials should consist only of rock, clean broken concrete or similar materials free of pollutants, silt and extraneous debris, including exposed rebar. Erosion and sediment controls should be implemented, maintained and monitored for the duration of a project.

Follow proper sand and gravel removal procedures outlined in the Missouri Instream Sand and Gravel Removal Guidelines prepared by the Missouri Departments of Conservation and Natural Resources. Guidelines include the following: leave a minimum 20-foot buffer zone between the water line and the excavation area, do not mine within 20 feet of streamside vegetation, and do not alter stream channels. In addition, do not remove gravel during the Arkansas darter spawning season (April 1 to June 15).

Limit clearing of vegetation, including standing and downed timber, to that which is absolutely necessary for construction purposes. Re-establish and maintain forested riparian corridors at least 100-foot wide along streams used by cypress minnows to reduce erosion and capture nutrient rich runoff.

Exclude livestock with fences to allow the area to naturally re-vegetate. Discourage cattle from using streams and move watering areas into pastures and away from streams.

Refer to Management Recommendations for Construction Projects Affecting Missouri Wetlands and Management Recommendations for Construction Projects Affecting Missouri Streams and Rivers for additional guidelines.

Consider the balance between adverse and beneficial practices when determining the overall effect of a conservation practice.

Beneficial Practices

- Limit livestock access to streams.
- Nutrient and pest management on adjacent agricultural fields that results in reduced opportunities for contamination of runoff.
- Protection and restoration of riparian corridors along streams and wetlands.
- Any practice that controls erosion and prevents the delivery of sediment to the aquatic system will prove beneficial to this species.

Adverse Practices

- Sand and gravel removal beyond the excess material on adjacent unconsolidated bars.
- Project activities that occur below the high water level between April 1 and June 15, the spawning season of the cypress minnow.
- Improper erosion and sediment control.
- Removing or degrading the riparian corridor along streams and wetlands.
- Unmanaged application of pesticides, animal waste or fertilizers.
- Draining or destroying wetland habitat.
- Creating dams and other impoundment structures in rivers within the range of this species.

Information Contacts

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Policy Coordination Section
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<http://www.mdc.mo.gov/nathis/endangered/>

Missouri Department of Natural Resources

Division of Environmental Quality
P.O. Box 176
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Telephone: 800-361-4827 / 573-751-1300
<http://www.dnr.mo.gov/env/index.html>

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U.S. Army Corps of Engineers
Regulatory Branch
700 Federal Building
601 E. 12th Street
Kansas City, MO 64106-2896
Telephone: 816-389-3990
<http://www.nwk.usace.army.mil/>

U.S. Environmental Protection Agency
Water, Wetlands, and Pesticides Division
901 North 5th Street
Kansas City, KS 66101
Telephone: 913-551-7003 / 800-223-0425
<http://www.epa.gov/region7/>

U.S. Fish and Wildlife Service
Ecological Services Field Office
101 Park DeVillie Dr., Suite A
Columbia, MO 65203
Telephone: 573-234-2132
<http://www.fws.gov/midwest/partners/missouri.html>

Legal

The Missouri Department of Conservation prepared these guidelines for conservation practices with assistance from other state agencies, contractors, and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat.

Compliance with these management guidelines is not required by the Missouri wildlife and forestry law or by any regulation of the Missouri Conservation Commission. Other federal, state or local laws may affect construction practices.

“State Endangered Status” is determined by the Missouri Conservation Commission under constitutional authority, and specific requirements for impacts to such species are expressed in the Missouri Wildlife Code, rule 3 CSR 10-4.111.